

**Department of Economics,
Faculty of Social Sciences,
Banaras Hindu University, Varanasi**

Syllabus- Ph.D Coursework

In force from Session 2010-11

The PhD course for the Research Scholars would consist of five papers. Out of these three papers would be compulsory and two optional (to be chosen from five options given as under).

Course	Type of Course	Number of Credits	Total Number of Credits for the Particular Type of Course
	Compulsory Course		15
I	Research Methods in Economics	5	
I	Quantitative Techniques	5	
III	Research Writing & Presentation	5	
IV & V	Optional Course (Any two to be Chosen)		10
A	Issues in Regional Development	5	
B	Issues in Macroeconomics	5	
C	Issues in Social Sector and Public Policy	5	
D	Applied Environmental Economics	5	
E	Globalisation and Its Challenges	5	
	Total Credits		25

Compulsory Papers

Course	Title of the Course	No. of Credits
I	Research Methods in Economics	5
I	Quantitative Techniques	5
III	Research Writing & Presentation	5

Course-I- Research Methods in Economics

- I. Nature of Inquiry and Truth: Ontology and Epistemology of Economic Events. The Chaos and Complexity. Methodological Approaches of Economics: Individualism, Socialism and Existentialism (Schumpeter, Weber, Hayek, Popper, Elester), the Methodology of Positive Economics, Realism of its Assumptions, the Significance and Role of Assumptions of a Theory, Theory and Practice.
- II. Approaches to Research: Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical. The Time Consideration: Historical, Experimental and *Ex Post Facto*.
- III. The Scientific Method: Positivism and Post Positivism, Introduction to Indian System of Logic and Method of Knowing Things, Empiricism, Nature of Reality. Role of Theory, Hypothesis, Data, the Relationships of Research to Practice. The Critical Theory and Interpretative Approaches.

- IV. The Post Modern Crises and Research: Analytical Realism (Altheide and Johnson), Interpretative Perspective (Denzin and Lincoln), Connoisseurship Model of Enquiry (Eisner), Introduction to Semiotics, Phenomenological Psychological Model and Structuralism, Post Structuralism and Post Modernism.
- V. Qualitative Research: The Contextual Understanding, Multiple Sources of Influences and Data, Foundational Perspective, Role of Researcher as primary Tool for Data, The Natural Context, Holistic Approach, Alternatives to Believility; Reliability and Validity, Question of Generalization.
- VI. Action Research and Innovative Methods: The participatory research, Cooperative Enquiry, Participatory Action Research, Emancipatory Action Research.
- VII. Steps in research Process: Formulating the Research Problem, Literature Survey, Definition of Variables Aim Objective and Development of Working Hypotheses, The Research Design (Observational and Analytical): the Sampling Design, Collection of Data, Analysis of Data, Hypothesis Testing, Generalization and Interpretation, Preparation of the Report.
- VIII. Type and Source of Data: Objective Description vs. Storytelling, Primary vs. Secondary Data, Methods of Primary Data: Observation, Interview and Questionnaire/ Schedule; Structured vs. Unstructured and Participatory vs. Non Participatory, The Pilot Survey, Reliability and Validity.
- IX. Sampling and Survey Data: Population and sample, Census Enquiry and Sampling, Purposive and non Purposive Sampling, Sample Size, Sampling Procedure: SRS (WR and WOR), Stratified, Systematic, Repeated Systematic, Cluster and Multi Stage cluster, Quota Sampling and Sequential Sampling, Sample Weights and Choice of Sampling Design.
- X. Data Compilation: Editing, Coding, Classification and Tabulation.

Course-II- Quantitative Techniques

Review of Statistical Tools and Techniques, Estimator and Estimation, Point and Interval Estimation, ANOVA, Parametric and Non-parametric Tests

Data and Errors in Data. Methods of Estimation of Parameters. Introduction of Parametric, Semi, Non-parametric and Bayesian Methods of Estimation.

Linear Regression with Multiple Variables, Shortcomings of Linear Regression Models Introduction to Non Linear Regression Function.

Introduction to Quintile Regression Models.

Introduction to Logistic Regression, Cumulative Odd Models for Ordinal Outcomes, Continuous Ratio Model, Adjacent Category Model, Probit, Logit and Trobits

Introduction to Spatial Regression Models, Spatially Lagged Dependent Variables, Spatial Error Models.

Lagged Variables and Distributed Lag Models, Introduction to Multiple Time Series Models, Basic Vector Auto Regression Model, Unit Root and Error Correction, Stationarity.

Introduction to Poisson Regression and Survival Analysis.

Regression with Panel Data, Fixed Effect Regresssion.

Multi Equation Models, The Simultaneous Equation Models, Identification, Instrumental Model.

Dummy and Proxy Variables.

Introduction to Multivariate Analysis; Factor, Cluster and Discrimanat.

Computer Applications; Use of SPSS and STATA.

Reading List:

- D. Gujarati, Basic Econometrics, McGraw Hill
- D. M. Nachane, Econometrics: Theoretical Foundations and Empirical Perspectives, Oxford University Press
- Meghanand Desai, Applied Econometrics, McGraw Hill
- Robert S. Pindyck & Daniel L. Rubinfeld, Econometric Methods and Economic Forecast
- Walter Ender, Applied Econometric Time Series, Wiley.
- Series on Quantitative Application In Social Sciences; 145, 146, 148, 149, 153, 159. By Sage Pub.
- Matyas, Laszlo, Sevester and Patric (Ed) The Econometrics of Panel Data, Springer.
- Manuel Arellano, Panel Data Econometrics (Advanced Texts in Econometrics) (Paperback) by
- A Koutsoyiannis , Theory of Econometrics , Publisher: [Ane Books](#); ISBN: 0333778227
- J. Johnston, Econometric Methods, McGraw Hill
- Jan Krneta, Elements of Econometrics, Macmillan, New York
- G. S. Maddala, Econometrics, McGraw Hill
- John Chipman, An Introduction to Advanced Econometric Theory, Routledge
- Mike Rosser, Basic Mathematics for Econometrics, Routledge-Atlantic
- K. Ravi, Q-Squared: Combining Qualitative and Quantitative Methods in Poverty Appraisal, Orient Longman
- R.G.D.Allen, Econometrics,
- D. Gujarati, Essentials of Econometrics, Schaum Series
- A.S. Goldberger, Introductory Econometrics, Harvard University Press, Cambridge

Course- III - Research Writing & Presentation

Objective- The primary objective of this paper is to develop writing skill in PhD scholars

This paper would consist of two sections- A & B of equal weights. In Part- A the students will be required to write two book reviews. The name of books to be reviewed will be given by the concerned supervisor and will essentially relate to the area of research of the student. The book review would be evaluated internally i.e. by the members of the Department. The Head of the Department will decide the name of the examiner in this case.

Part-‘B’ of the paper would consist of a short dissertation. The topic of the dissertation will be decided by the supervisor and will necessarily relate to the broad area of research undertaken by the student. The dissertation will be evaluated by external supervisor.

Optional Paper

Course-IV/V.A- Issues in Regional Development

1. Conceptual Issues: Different types of Regions like: Formal and Functional Regions, Macro, Messo and Micro Regions, Natural, Economic and Planning Regions; Meaning and Scope of Regional Development; Aspects of Concentration and Dispersal of economic activities (Polarization and Spread); Multiplier Effect in Spatial terms; Disparity and Diversity.
2. Theories:
 - a. Basic Theories of Spatial Economic Structure – Richardson and Smith

- b. Dependency Theory – Andre Günter Frank
 - c. World System Approach – Wallerstien and Samir Amin
 - d. Linkage between World-Trade and Regional Development – Krugman
3. Measurement of Developmental Processes: Dimensions, Variables and Indicators, Principal Component Analysis, Gravity Model, Simulations, Input-output Model; Regionalisation – Clustering
 4. Experiences, Efforts and Case-studies: Process of Economic Concentration and Relocation - China, Venezuela, India; Nature of State Intervention and Process of Regional Development; Problem Regions- Eastern UP, Bundelkhand

Reading List-

- Harry W Richardson- Elements of Regional Economics, Penguin Modern Economic Text
- Harvey Armstrong and Jim Taylor , Regional Economic Policy *and its Analysis*, First Edition, Philip Allan Publishers Limited, Oxford OX5 4SE
- Jorge Martinez-Vazquez, François Vaillancourt, Public Policy for Regional Development, Rutledge
- Roberta Capello, Regional Economics, Rutledge

Course -IV/V B Issues in Macro Economics

Consumption Function: Consumption under uncertainty, estimation of aggregate consumption function, Investment Function-empirical model of aggregate investment function, Macroeconomic Problems of Inflation & Unemployment: Measurement of Inflation: WPI & CPI in India- System of weighting and issues in computation, Monetary Growth, Rate of interest and Inflation, Empirical testing of the determinants and impacts of inflation, Inflation Targeting, Patterns & trends of unemployment, Wage rigidity and structural unemployment, Relationship between Inflation and unemployment in closed and open economy, Monetary and Fiscal policies as stabilisers, Fiscal and monetary policy conflicts.

Dynamic Macroeconomics- The Solow Model and the Central Question of the Growth Theory, Growth Accounting and Sources of Economic Growth, Convergence and differences in the rate of growth across countries, Endogenous Growth Model, Education and Economic Growth, Health Status and Economic Growth

International Macroeconomics- Empirical verification of Approaches to Balance of Payments: Elasticity, Absorption and Monetary Approaches, International Capital Flow- Determinants & Impact of FDI on economic growth, employment and regional disparity :Case study of China, India and Latin American countries, Stock Market and international capital flows, Regional Economic Integration and Its Impact, Case Study of SAARC & ASEAN, World Trade Organisation- Approaches to measurement of impact of WTO on different sectors of the economy, Case Study of Agriculture and Pharmaceutical Sector, Impact assessment of GATS and TRIPS, Impact assessment of open economy macro-economic policies.

Reading List-

- Hejdra, B.J. and F.V. Ploeg (2001), Foundations of Modern Macroeconomics, Oxford University Press, Oxford.

- Blanchard Olivier & Fischer Stanley. Lectures on Macroeconomics. Cambridge: MIT Press
- Frisch, H: Theories of Inflation, Cambridge University Press
- Salvatore, Dominick, International Economics, John Wiley
- Cherunilam Francis, International Economics (4th Edition) 2006 Tata McGraw-Hill Companies
- Krugman Paul and Maurice Obstfeld, *International Economics: Theory and policy*, latest edition, Pearson Education low-price edition, distributed in India by Addison-Wesley Longman.

Course-IV/V-C Issues in Social Sector & Public Policy

Social Sector - Theoretical Paradigms : Approaches & Definition, Theories of Social Sector: Social Exclusion & Inclusion, Social Development Index , Human Resource Development & Human Development : Differences and Linkages, Measurement of Various Forms of Human Development – Special characteristics of Education, Health, Nutrition, Environment, Marginalized Groups, Women and Social Development and Child Development.

Economics of Education : Formal and Non-Formal Education , Education for All in India : Primary Education, Quality concerns in Elementary education. Education of Urban and Rural Disadvantaged Children, Education among SC's & ST's. Decentralization of Education. Contribution of NGOs in Basic education. Union and State Governments – Special Programmes for Education, Educational Financing: Financing of Elementary, Secondary & Higher Education in India.

Economics of Health : Role of State in Health: Constitutional Provisions, Role of Central Govt .& State Govts. Economic Growth, Poverty and Health. Communicable and Non- Communicable Diseases. Maternal and Child Survival. HIV / AIDS in India. Private & Public HealthCare. Health Finance. Drug Policy and Regulation. Indian Systems of Medicine. Introduction of NFHS- 1 & NFHS -2

Social Sector Policies : Policy Framework in Five-Year Plans – Plans & Progress, Economic Reforms and Social Sectors, Typology of Economic Growth and Human Development in Indian States – Trends and Disparities in Social Sector Development , Role of Public and Private Sectors , Financing of Social Sectors, Limitations of Policy, Social Security – Special Policy Issues.

Readings List:

- K.Seeta Prabhu(2001): Economic Reform and Social Sector Development,(N. Delhi: Sage Publications)
- K.Seeta Prabhu & R. Sudarshan(2002):Reforming India's Social Sector,(N. Delhi: Social Science Press)
- Parikh, K.S.(1999):India Development Report(1999-2000),(N. Delhi: Oxford University Press)
- Parikh, K.S. & Radha Krishna,R.(2005): India Development Report(2004-05),(N. Delhi: Oxford University Press)
- Kundu, Amitabh(2006): India Social Development Report,(N. Delhi: Oxford University Press)
- R. Govinda(2002): India Education Report,(N. Delhi: Oxford University Press)
- Misra, Rajiv(2003): India Health Report,(N. Delhi: Oxford University Press)

Course-IV/V -D Applied Environmental Economics

- I. Consumer Welfare Measurement in Environmental Economics Framework

- i. Consumer demand theory: Utility maximization –some issues
- ii. Measuring changes in the well being of consumers; consumer surplus, compensating and equivalent variation,
- iii. Public goods and welfare change
- iv. General equilibrium considerations
- v. Environment, Poverty and Human Wellbeing
- II. Valuing Non-market benefits
 - i. Expenditure function approach, market valuation via physical linkage, market valuation via behavioral linkage, property values, benefit estimation and hedonic pricing.
 - ii. Restriction demand and the Travel Cost Method (TCM), Household production function approach, limited dependant variables models, TCM with site attributes.
 - iii. The Contingent Valuation Method, Welfare measurement by CVM theory, CV survey techniques: Issues and challenges,
 - iv. Other Direct Valuation Methods, Choice experiments, constructed preferences, Fuzzy logic and its potential for non-market valuation
 - v. Compensation and rewards for Ecosystem services
- III. Evaluating Natural Resource Policy
 - i. Policy evaluation and the role of government
 - ii. A brief background to Cost Benefit Analysis
 - iii. Application of CBA: Air Quality and Opportunity Costs, Water Quality and economic benefits, Composting and management of waste
 - iv. Economic Dynamics and Renewable Resources Management
 - v. Economics of biological diversity, nature conservation, protected, areas, forest management and wild life protection,
- IV. The Quest for Sustainable Development: Theories and practices
 - i. Sustainability paradigm: maintaining capital stocks,
 - ii. Sustainability and Development
 - iii. Sustainability Rules
 - iv. Market allocations, efficiency and sustainability
 - v. Resource Depletion and Economic Sustainability
- V. Environment and the Developing Countries with reference to India
 - i. The Dependence on Natural Resources and resource interconnections
 - ii. The Economic cost of Resources Damage
 - iii. Economic Incentives and Natural Resource Management Policy
 - iv. Eco-taxes and carbon trading in India
 - v. National and International Policymaking

Reading List:

- Adams, W.M. 1991. Green Development: Environment and Sustainability in the Third World. Routledge Press.
- Anderson, T. and J. Bojo (1992), “ The economic value of forests,” in: A. Agarwal (ed), The Price of Forests, New Delhi, Centre for Science and Environment, pp.32-42.
- Baumol, W. J. and W. E. Oates (1975) The Theory of Environmental Policy: Externalities, Public Goods and the Quality of Life, Englewood Cliffs, Prentice Hall.
- Berry, J. L. and F. E. Horton (1974), Urban Environmental Management, New Jersey, Prentice Hall Inc.
- Braden, J. and C .Kolstad (1991). Measuring the Demand for Environmental Quality, Amsterdam, North Holland.

- Champ, P. K. Boyle, and T. Brown. 2003. A Primer on Nonmarket Valuation, Kluwer.
- Chopra, K., G. K. Kadekodi and N. Mongia (1993), Environmental Impacts of Projects: Planning and Policy Issues, New Delhi, Institute of Economic Growth.
- Dwiwedi O. P. and B. Kishore (1984),” India’s environmental policies: a review”, Environmental Policy in India, Indian Institute of Public Administration, New Delhi.
- Freeman III, A. M. (1979). The Benefits of Environmental Improvement: Theory and Practice, Baltimore, The John Hopkins University Press.
- Hanley, N. D. and C. L. Spash (1993), Cost Benefit Analysis and Environment, Aldershot, U.K., Edward Elgar Publications.
- Johnsson, P. O. (1987). The Economic Theory and Measurement of Environmental Benefits, Cambridge University Press, Cambridge
- Mehta, S., S. Mundle and U. Sankar (1997). Controlling Pollution: Incentives and Regulations, New Delhi, Sage Publications
- Mishan, E. J. (1972), Elements of Cost-Benefit Analysis, London, George Allen and Unwin Ltd.
- Pearce, D. W., A. Markandya and E. Barbier (1989). Blue Print for a Green Economy, London, Earthscan Publications Ltd.
- Pearce, D. W., E. Barbier and A. Markandya (1989). Sustainable Development: Economics and Environment in the Third World, London, Earthscan Publications Ltd.
- Ruth, M. (1993), Integrating Economics, Ecology and Thermodynamics, The Netherlands, Kluwer Academic Publishers, Dordrecht.
- Vakil, A. C. (1984). Economic Aspects of environmental Pollution in India, Bombay, Published by the Author.

Course-IV/V-E Globalisation and Its Challenges

Understanding Globalisation: Historical development of Capitalism and the idea of free market, Role of multilateral agencies and changing role of state, Neo-liberalism, Neo-liberal economic order, Globalisation and restructuring of economies of developing countries.

Poverty, Inequality and Unemployment: Trends and patterns in post reform period, Issues in measurement and measuring techniques, interrelationship with globalisation.

Trade: Trade liberalisation and its effect, WTO and new patent regime, liberalisation and capital flows, Inclusive Growth: Deprivation – meaning, measurement and causes, inclusive/exclusive growth, labour market discrimination and wage differentials.

Rural Economy: Crisis in agriculture vs. agrarian crisis, Diagnosis of Agrarian Crisis in India, Crisis in livelihood in India, Rural non-farm sector.

Institutions: Issue in national and international governance, Impact of globalisation on political, cultural and economic institutions, corruption/parallel economy and globalisation.

Reading List:

- Arvind (2002): “Globalisation an Attack on India’s Sovereignty” New Vistas Publication, New Delhi.
- Bhaduri Amit (2006): “Employment and Development; Essays from an Unorthodox Perspective”, Oxford University Press.
- Chandrasekhar CP and Ghosh Jayati (2002): “The Market that Failed” Left Word Books, New Delhi.
- Farrington J, Deshingkar P, Johnson C and Start D (2006): “Policy Windows and Livelihood Futures; Prospects for Poverty Reduction in Rural India”, Oxford University Press.

- Nayyar Deepak (2008): “Liberalization and Development”, Oxford University Press.
- Patnaik Prabhat (1995): “Whatever Happened to Imperialism”, Tulika, New Delhi.